

Cross Forest

INEA/CEF/ICT/A2017/1566738

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Co-financed by the Connecting Europe
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Published datasets from Portugal and Spain, Iberian datasets

23/06/2021



Inventories and Forest Cartographies in CROSSFOREST

IFN3 (Third National Forest Inventory). Spain

IFN6 (Sixth National Forest Inventory). Portugal

IFI (Iberian Forest Inventory). Spain and Portugal

MFE50 (Spanish Forest Map, 1:50.000)

COS2018 (Land Occupation Cartography). Portugal

ILU (Iberian Land Use). Spain and Portugal

INES (National Soil Erosion Inventory, NSEI). Spain

Iberian Forest Fires Statistics. Spain and Portugal



**Published in a Linked Open Data
format (LOD)**

NATIONAL FOREST INVENTORY (NFI) INVENTARIO FORESTAL ESPAÑOL (IFN)

Basic information to elaborate forests statistics

3 inventories have been completed (since 1965), NFI4 ongoing project (since 2008).

Legal basis

Forest Law, article 28

Main characteristics

National

Decennial

Province level

Plots repetition (since IFN2)

Wooded areas

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NATIONAL FOREST INVENTORY (NFI). SPAIN

NFI (SPAIN) IN FIGURES

- ✓ More than 50 years reporting state of the forests
- ✓ 90.000 permanent plots in all the territory
- ✓ 1,3 millions trees measured
- ✓ 7.500 millions os standing trees, 1.100 millions m³



INPUT DATA: NATIONAL FOREST INVENTORY (NFI). SPAIN

Inventario	Años	Estratificación	Método de Muestreo	Tipo de Parcela	Número de Parcelas
IFN1	1965 1974	Malla sobre Fotografías aéreas	Afijación Óptima de Parcelas	Temporal	65.000
IFN2	1986 1995	Malla sobre Mapas	Malla sistemática 1x1 km.	Permanente	84.203
IFN3	1997 2007	Malla sobre Mapa Digital	Misma Malla que IFN2	Permanente	95.327
IFN4	2008 20....	Malla sobre Mapa Digital	Misma Malla que IFN3	Permanente	A determinar



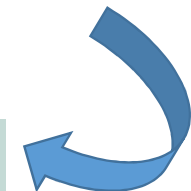
Parcelas repetidas



IFN3 DOWNLOADED FROM MITECO WEB

CURRENT FORMAT:
100 Access files (2 x province)

DATA INCLUDED in CROSSFOREST:
Data from **IFN3: field and processed data**





NATIONAL FOREST INVENTORY (NFI). PORTUGAL

NATIONAL FOREST INVENTORY (NFI) INVENTÁRIO FLORESTAL NATIONAL (IFN)

Abundance, state and condition of National forest resources

6 inventories have been completed (since 1965).

Responsible Entity

ICNF – Instituto da Conservação da Natureza e das Florestas.

Main characteristics

National

Decennial

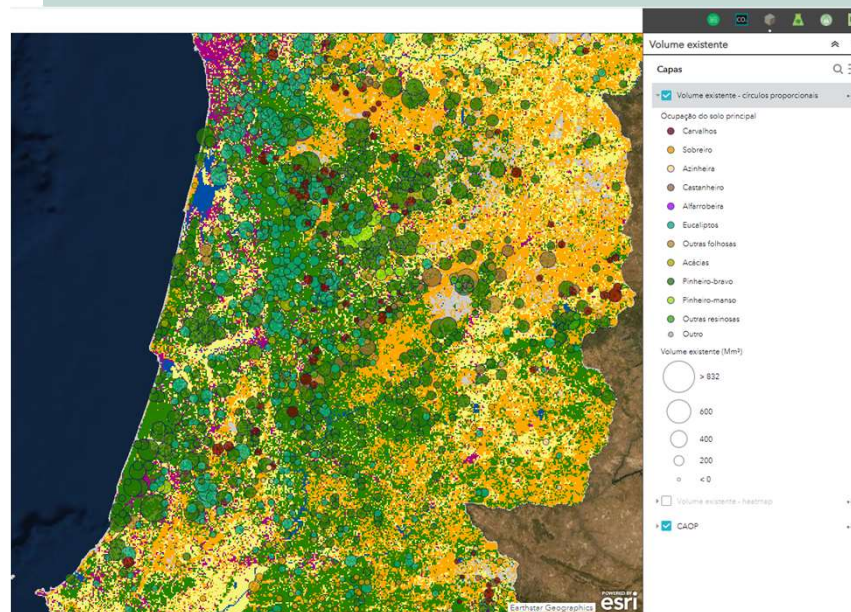
Statistical and cartographic project

Wooded areas

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NFI (PORTUGAL) IN FIGURES

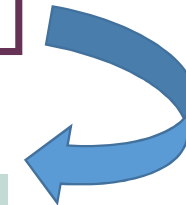
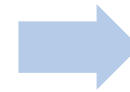
- ✓ More than 50 years reporting state of the forests
- ✓ 6.1 million ha of forest areas (69% of the continental national territory)
- ✓ Forest is the main use (36%)
- ✓ The national forest is mainly composed of native forest species (72%)



INPUT DATA : NATIONAL FOREST INVENTORY (NFI). PORTUGAL



DESIGNAÇÃO	ANO DE REFERÊNCIA
IFN 1 Inventário Florestal Nacional	1965
IFN 2 1.ª Revisão do IFN	1974
IFN 3 2.ª Revisão do IFN	1985
IFN 4 3.ª Revisão do IFN	1995
IFN 5 5.º Inventário Florestal Nacional	2005
IFN 6 6.º Inventário Florestal Nacional	2015



[IFN6 DOWNLOADED FROM ICNF WEB](#)

CURRENT FORMAT:

Excel Tables and GIS shape file

DATA INCLUDED in CROSSFOREST:
Data from IFN6: **stock data at the dominant formation level (level NUTS3)**



CURRENT FORMAT:
Microsoft Access database
(accdb)

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INPUT DATA : IBERIAN FOREST INVENTORY (IFI). Spain and Portugal

EXSISTENCIAS POR HA_FormDom

IFN	NUTS1	NUTS2	NUTS3	IdFormDom	FormDom	NPies	ABas	VCC
3	ES1	ES11	ES111	11101	Pinus pinaster	683,09	27,45	204,01
3	ES1	ES11	ES111	11102	Pinus pinaster	498,61	20,17	139,70
3	ES1	ES11	ES111	11103	Pinus pinaster	574,95	11,61	71,06
3	ES1	ES11	ES111	11104	Pinus pinaster	243,90	10,19	65,65
3	ES1	ES11	ES111	11105	Pinus pinaster	303,26	5,99	32,30
3	ES1	ES11	ES111	11106	Pinus pinaster y Euc	621,22	18,92	145,45
3	ES1	ES11	ES111	11107	Pinus pinaster y Euc	281,02	6,73	43,16
3	ES1	ES11	ES111	11108	Pinus pinaster y froi	422,16	15,94	112,39
3	ES1	ES11	ES111	11109	Pinus radiata	446,14	17,57	118,97
3	ES1	ES11	ES111	11110	Quercus robur	546,73	14,71	81,79
3	ES1	ES11	ES111	11111	Quercus robur y otr	568,59	15,60	99,21
3	ES1	ES11	ES111	11112	Eucalyptus globulus	1.031,40	23,35	199,22

DATA INCLUDED in CROSSFOREST
Data from **IFN3** (Spain) and **IFN6** (Portugal): **stock data at the dominant formation level (NºTrees, BasalArea, VwithBark)**
(NUTS3, Provincias or Regiões)

SPANISH FOREST MAP (SFM) MAPA FORESTAL DE ESPAÑA (MFE)

Basic information to elaborate forest areas statistics

Several versions at different scales and with different data models (since 1964), MFE25 ongoing project (since 2007).

Legal basis

Forest Law, article 28

Main characteristics

Decennial project

Information at province level

Homogeneous detail for all Spanish territory.

Current scale: 1:25.000

Elaborated by photointerpretation, with partial field verification

IFN cartographic basis since 3NFI

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SPANISH FOREST MAP (SFM). SPAIN

SFM IN FIGURES (MFE-MAX)

- ✓ 1,4 million mapped paths
- ✓ More than 28 M ha of forest hectares characterized
- ✓ 44 M data collected
- ✓ More than 100.000 paths visited in the field



INPUT DATA: SPANISH FOREST MAP (SFM). SPAIN



MFE50 DOWNLOADED FORM MITECO WEB

CURRENT FORMAT:

50 GIS shape files
(1 x province)



DATA INCLUDED in CROSSFOREST
Data from **MFE50 (14 attributes)**
and **path geometries**



LAND USE LAND COVER MAP OF PORTUGAL

LAND USE LAND COVER MAP OF PORTUGAL CARTA DE USO E OCUPAÇÃO DO SOLO DE PORTUGAL (COS)

Cartography of polygons, which represent homogeneous land over/land use units
5 inventories: 1995, 2007, 2010, 2015, 2018

Responsible Entity

DGT – Direção-Geral do Território

Main characteristics

National

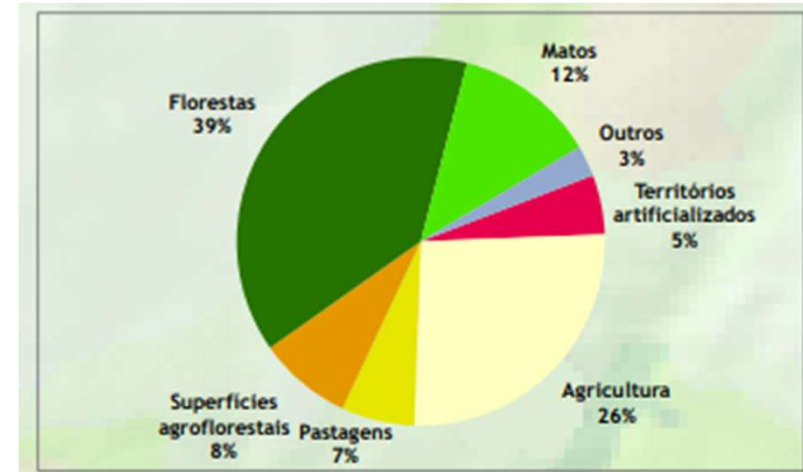
Based on CLC classes

COS2018 includes 83 classes at 4 levels
based on photointerpretation;

Scale 1:25.000

Minimum unit 1 ha

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COS
The National Land Cover Land Use
mapping program



- ✓ Thematic cartography applied to mainland Portugal;
- ✓ Nomenclature with more than 80 classes;
- ✓ The limits of COS2018 on the border with Spain are those of the Official Administrative Map of Portugal (CAOP).



COS

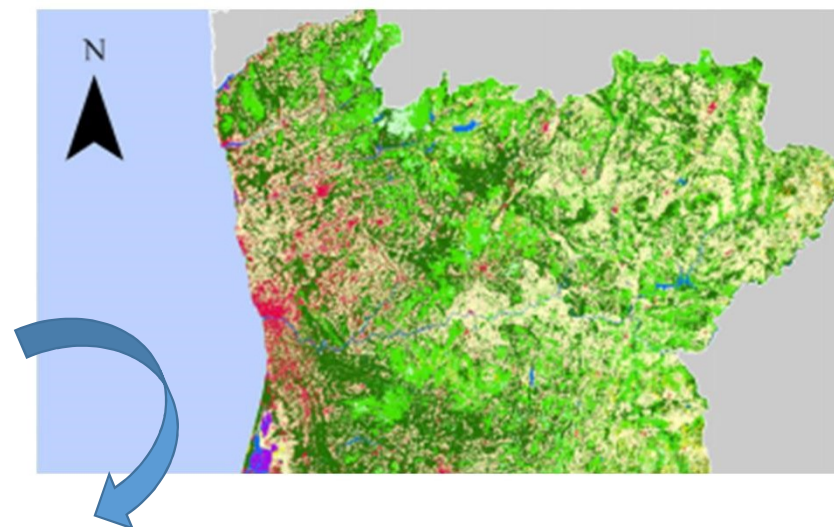
The National Land Cover Land Use
mapping program



DESIGNAÇÃO	ANO de REFERÊNCIA
COS1995	1995
COS2007	2007
COS2010	2010
COS2015	2015
COS2018	2018



INPUT DATA: **LAND OCCUPATION CARTOGRAPHY PORTUGAL.
COS2018**



[COS2018 DOWNLOADED FROM SNIG WEB](#)

CURRENT FORMAT:

GIS shape file

DATA INCLUDED in CROSSFOREST
Data from **COS2018 (83 classes)** and
geometries

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INPUT DATA : IBERIAN LAND USE (ILU).
Spain and Portugal



COS
The National Land Cover Land Use
mapping program



CURRENT FILES:
GIS shape files

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DATA INCLUDED in CROSSFOREST
Data from **MFE50 (CLAMFE)** and **COS2018 (Level 1)**

NATIONAL SOIL EROSION INVENTORY (NSEI) INVENTARIO NACIONAL EROSIÓN DE SUELOS (INES)

Homogeneous geographic information system on types of erosion.

Period 2002–2019

Legal basis

Forest Law 43/2003

Main characteristics

National

Periodic project

Information at province level

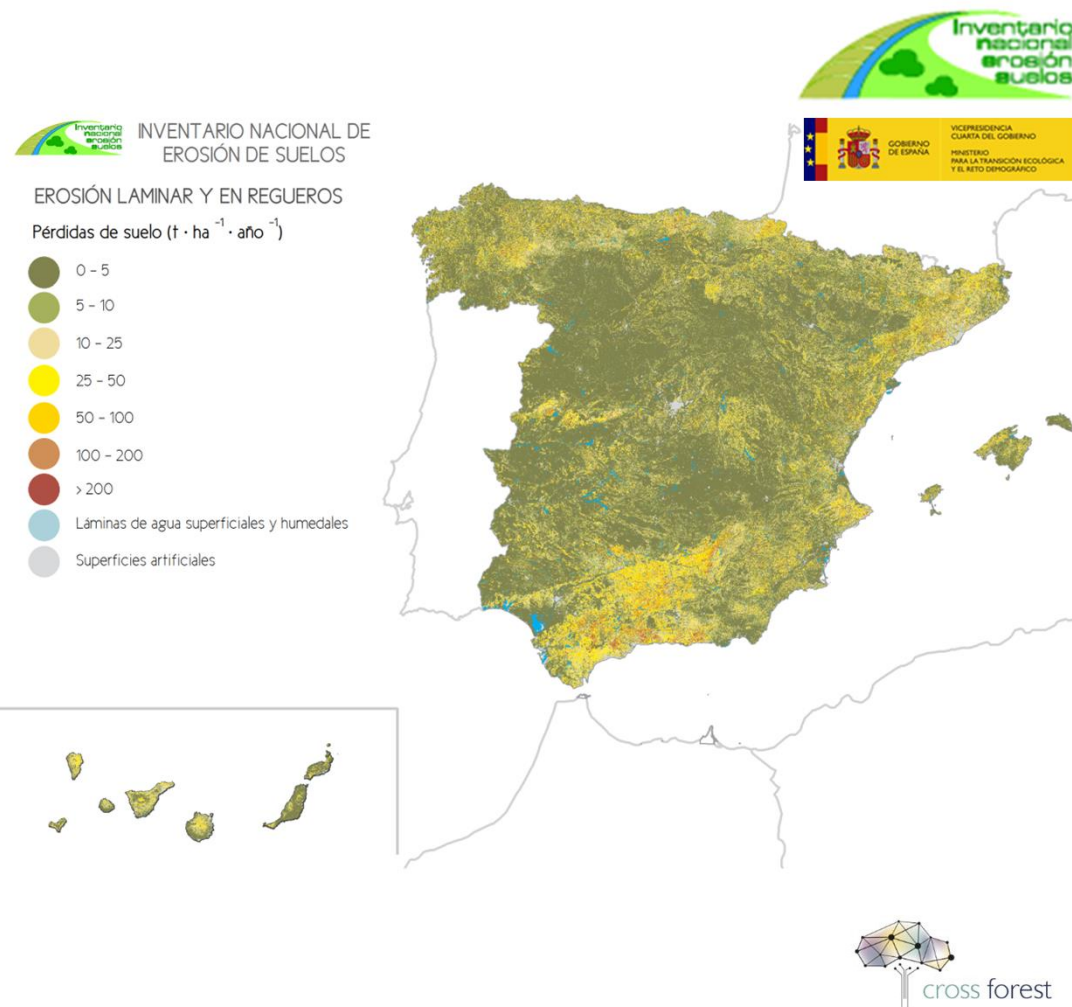
Work scale 1:50.000, with a resolution of 25 m

All lands included: Forests, grasslands and croplandlands

Five types of erosion are studied

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NATIONAL SOIL EROSION INVENTORY (NSEI). SPAIN



INPUT DATA: NATIONAL SOIL EROSION INVENTORY (NSEI). SPAIN

INES DOWNLOADED FROM MITECO WEB

CURRENT FORMAT:

GIS FORMAT for each province and for each type of erosion



DATA INCLUDED in CROSSFOREST

Rill and interrill erosion, gully erosion and mass movements hazards associated with the grid of 25 m



FOREST FIRES STATISTICS.SPAIN

The General Forest Fire Statistics (EGIF) is prepared at the National Forest Fire Information Coordination Center (CCINIF) based on the annual information provided by the autonomous communities

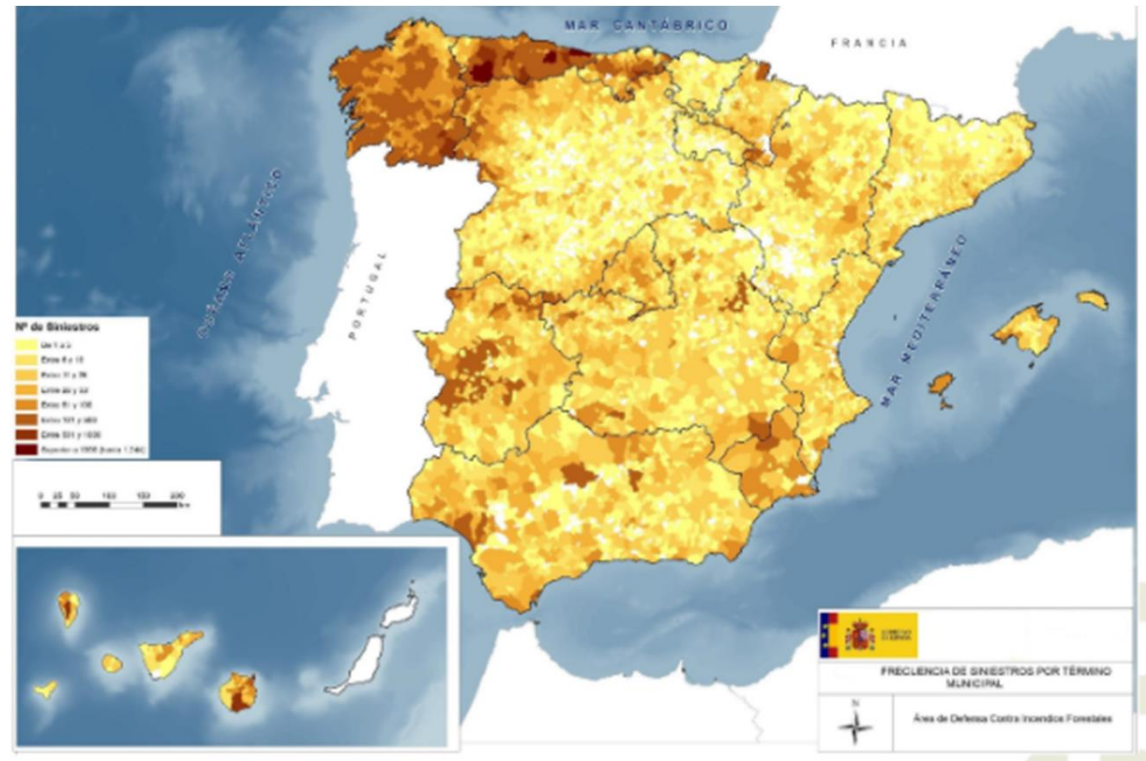
Data base since 1968

Currently $> 5 \cdot 10^6$ fires recorded

Legal basis: Forest Law, article 28

Data integration and process by WEB platform

Annual periodicity



FOREST FIRES STATISTICS. PORTUGAL

Produced by DECIF (Special device for fighting forest fires of the ICNF -Instituto da Conservação da Natureza e das Florestas-)

Data base since 1980 is constantly generated and updated.

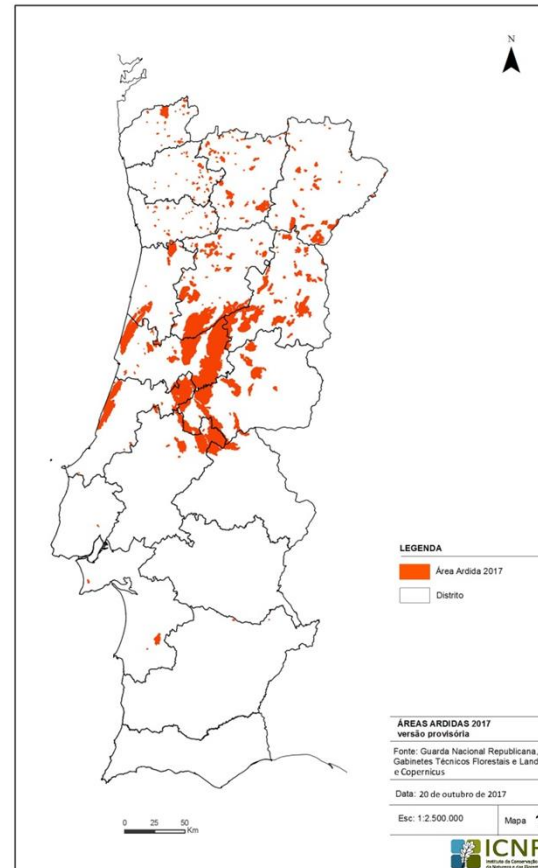
Cartography of burned areas since 1975 (greater than 5 ha) and from 2000 surfaces under 5 ha.

In 2020, a total of 9394 rural fires were recorded, resulting in 65887 hectares of burnt area

DOWNLOADED FROM ICNF WEB:

<http://www2.icnf.pt/portal/florestas/dfci/inc/estat-sgif>

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Áreas ardidas por tipo de ocupação do solo (1996-2014)

Ocupação do solo	1996	1997	1998	1999	2000
pinheiro-bravo	12 099	3 171	30 961	11 709	18 291
eucaliptos	2 767	1 868	13 451	5 368	7 366
sobreiro	1 333	98	2 029	1 024	1 409
azinhela	377	74	626	250	222
carvalhos	1 207	467	3 933	2 047	2 274
pinheiro-manso	-	25	175	75	198
castanheiro	302	49	225	150	618
alfarrobeira	-	-	-	-	-
acácias	25	-	125	50	-
outras folhosas	1 107	197	2 906	999	1 532
outras resinosas	1 434	270	2 129	899	1 186
espécie indeterminada	377	98	1 678	300	692
matos e pastagens	57 123	11 972	127 275	35 376	86 115
outras ocupações	14 790	2 975	30 660	8 938	23 382
Total (área ardida) [ha]	92 942	21 265	216 175	67 183	143 285



Thanks!



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